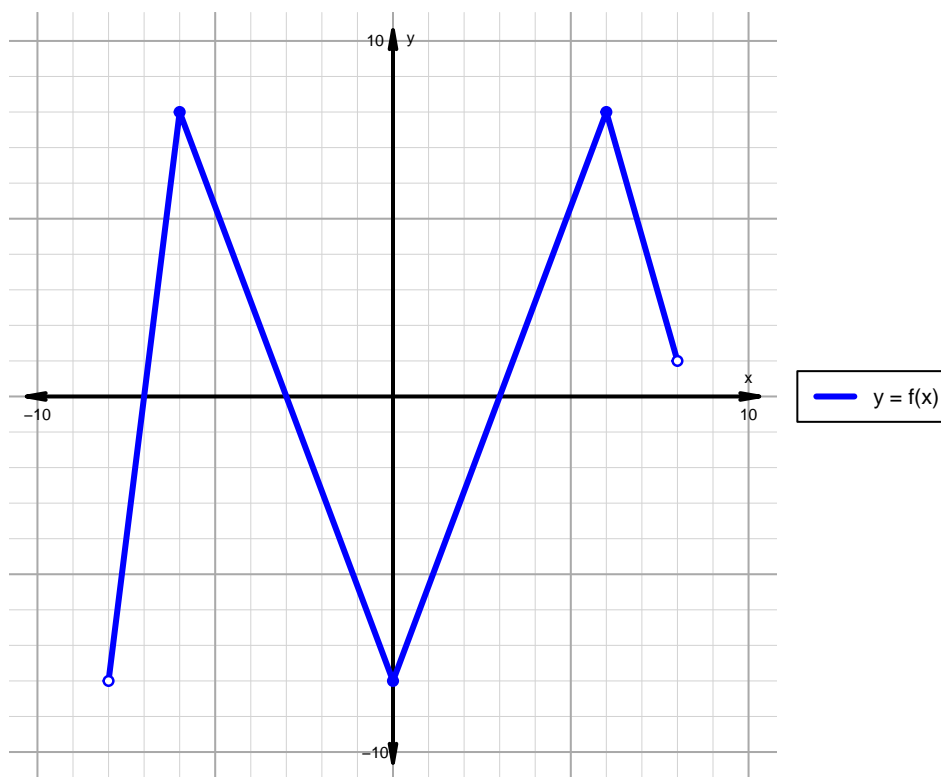


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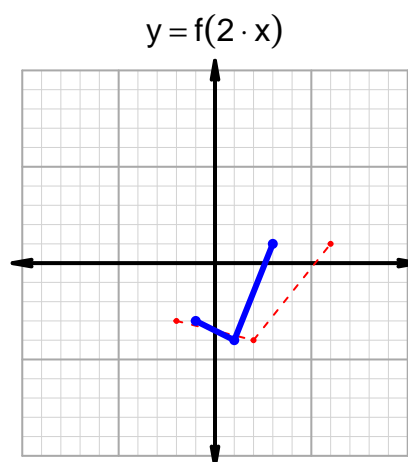
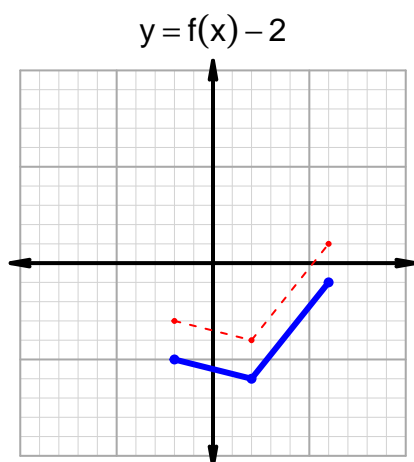
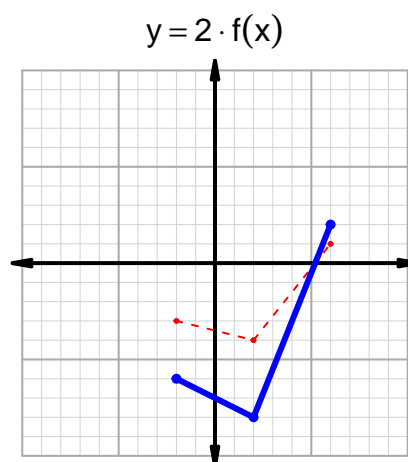
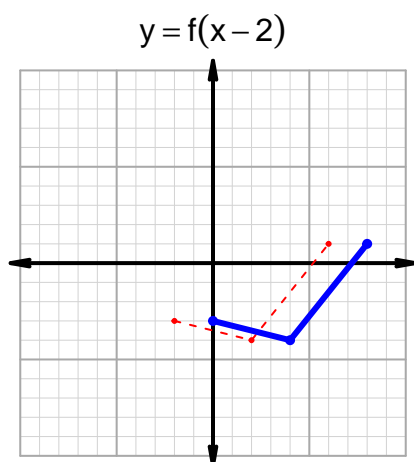
Intervals, Transformations, and Slope Solution (version 1)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-7, -3) \cup (3, 8)$
Negative	$(-8, -7) \cup (-3, 3)$
Increasing	$(-8, -6) \cup (0, 6)$
Decreasing	$(-6, 0) \cup (6, 8)$
Domain	$(-8, 8)$
Range	$(-8, 8)$

Intervals, Transformations, and Slope Solution (version 1)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 32$ and $x_2 = 95$. Express your answer as a reduced fraction.

x	$g(x)$
32	74
47	32
74	95
95	47

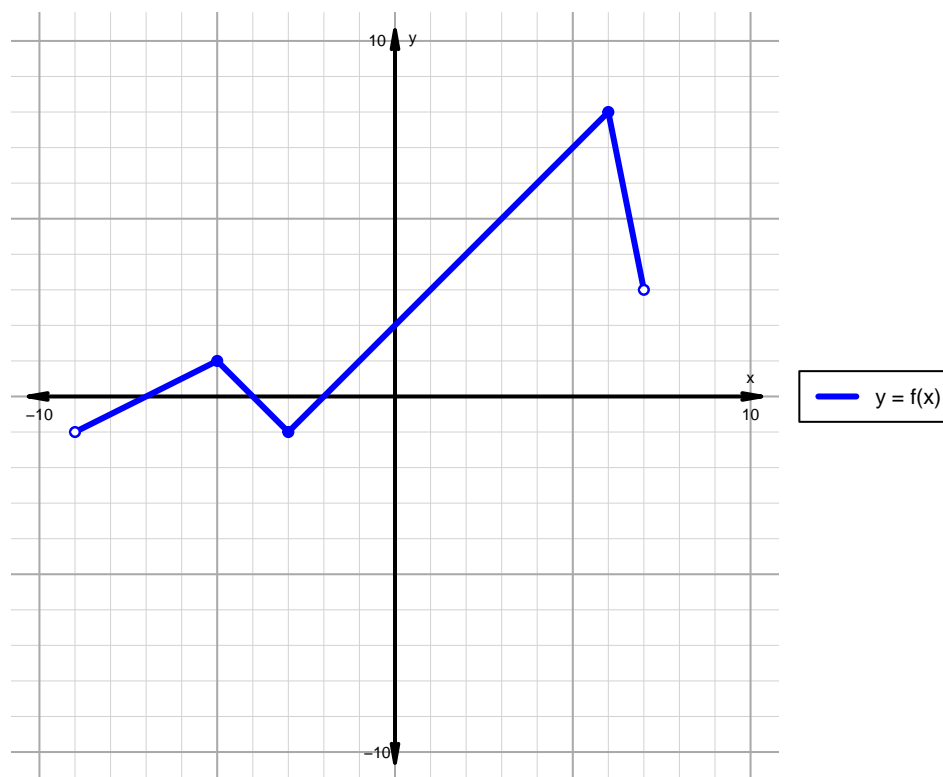
$$\frac{f(95) - f(32)}{95 - 32} = \frac{47 - 74}{95 - 32} = \frac{-27}{63}$$

The greatest common factor of -27 and 63 is 9. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-3}{7}$$

Name: _____

Date: _____

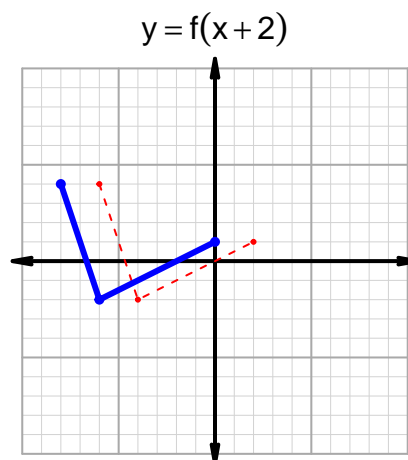
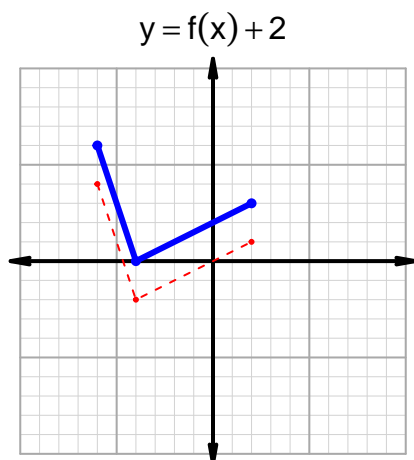
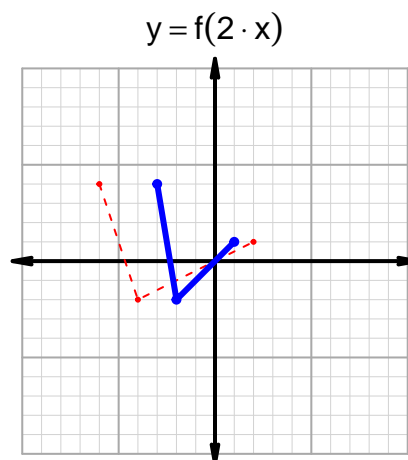
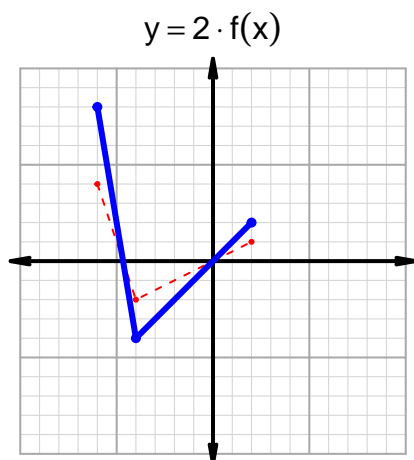
Intervals, Transformations, and Slope Solution (version 2)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-7, -4) \cup (-2, 7)$
Negative	$(-9, -7) \cup (-4, -2)$
Increasing	$(-9, -5) \cup (-3, 6)$
Decreasing	$(-5, -3) \cup (6, 7)$
Domain	$(-9, 7)$
Range	$(-1, 8)$

Intervals, Transformations, and Slope Solution (version 2)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 94$ and $x_2 = 98$. Express your answer as a reduced fraction.

x	$g(x)$
46	94
56	98
94	56
98	46

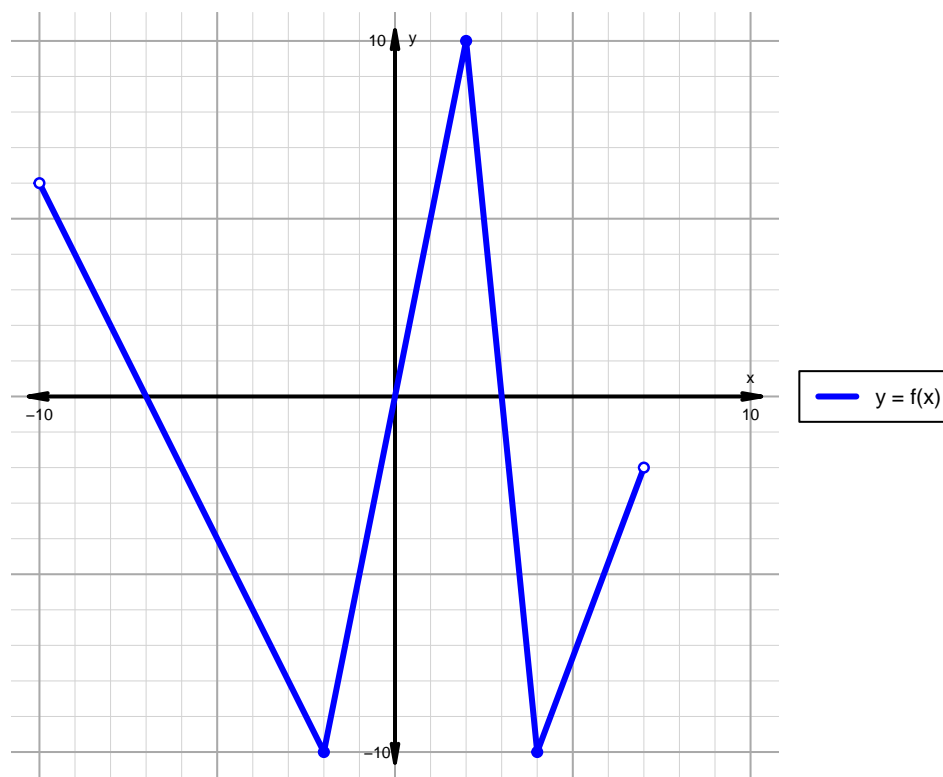
$$\frac{f(98) - f(94)}{98 - 94} = \frac{46 - 56}{98 - 94} = \frac{-10}{4}$$

The greatest common factor of -10 and 4 is 2. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-5}{2}$$

Name: _____

Date: _____

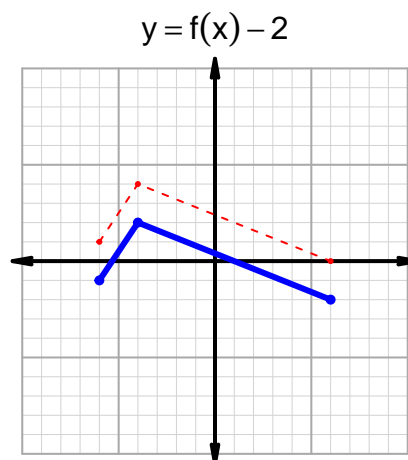
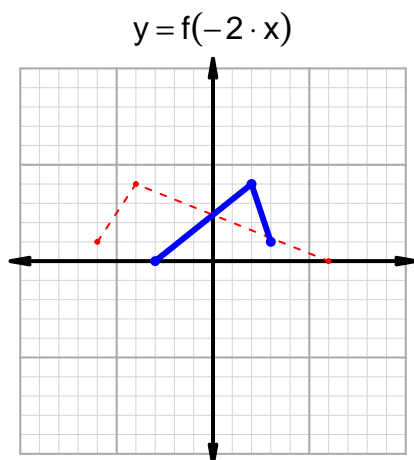
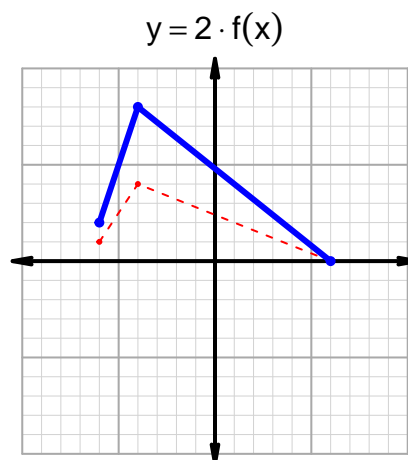
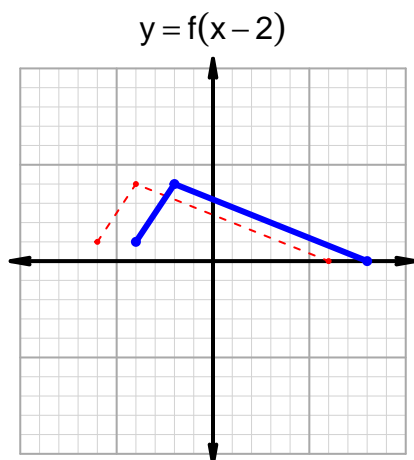
Intervals, Transformations, and Slope Solution (version 3)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-10, -7) \cup (0, 3)$
Negative	$(-7, 0) \cup (3, 7)$
Increasing	$(-2, 2) \cup (4, 7)$
Decreasing	$(-10, -2) \cup (2, 4)$
Domain	$(-10, 7)$
Range	$(-10, 10)$

Intervals, Transformations, and Slope Solution (version 3)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 70$ and $x_2 = 88$. Express your answer as a reduced fraction.

x	$g(x)$
18	88
70	18
88	99
99	70

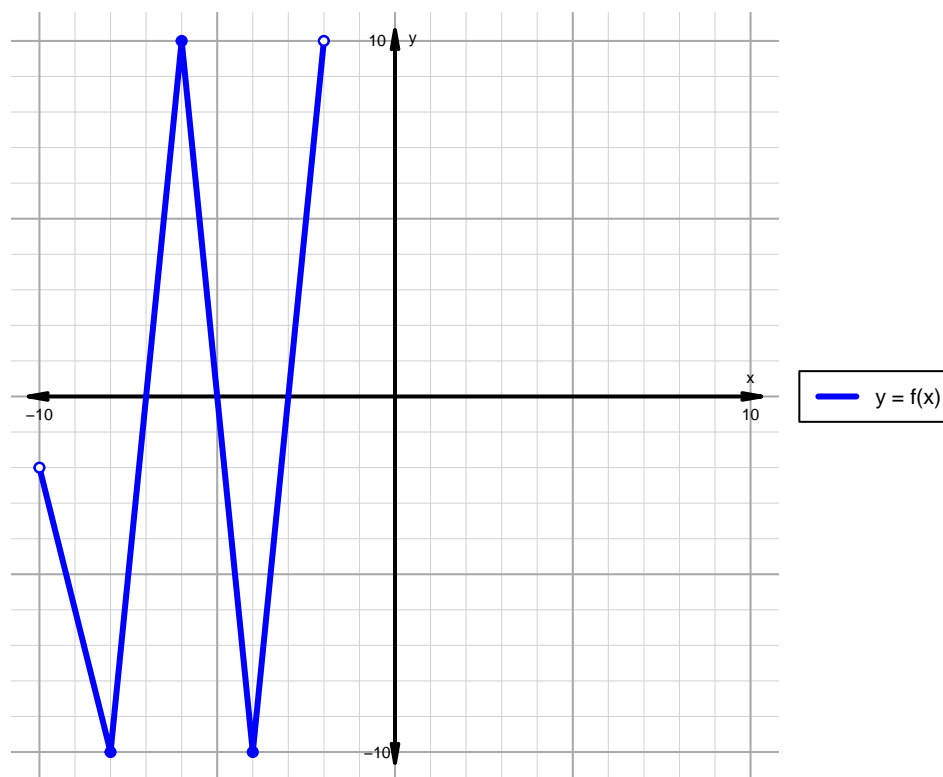
$$\frac{f(88) - f(70)}{88 - 70} = \frac{99 - 18}{88 - 70} = \frac{81}{18}$$

The greatest common factor of 81 and 18 is 9. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{9}{2}$$

Name: _____

Date: _____

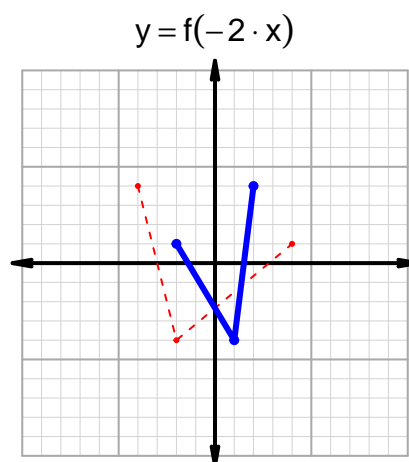
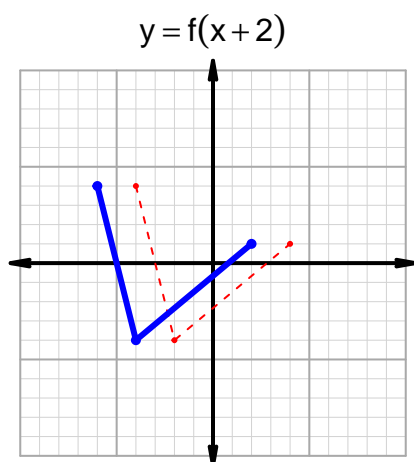
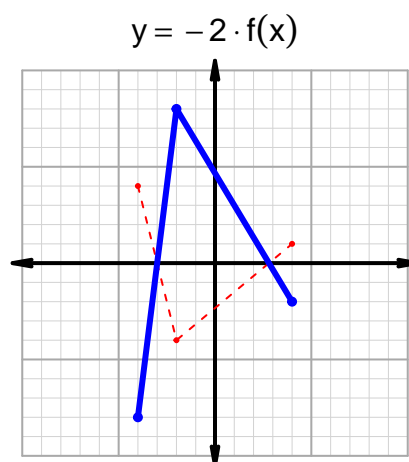
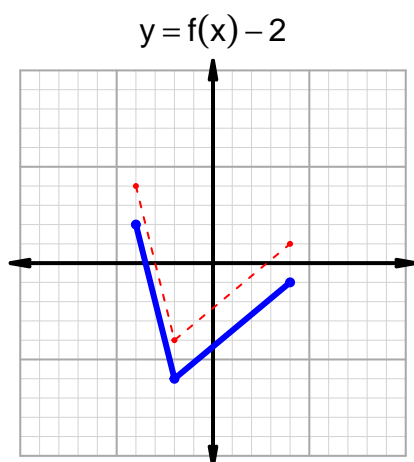
Intervals, Transformations, and Slope Solution (version 4)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-7, -5) \cup (-3, -2)$
Negative	$(-10, -7) \cup (-5, -3)$
Increasing	$(-8, -6) \cup (-4, -2)$
Decreasing	$(-10, -8) \cup (-6, -4)$
Domain	$(-10, -2)$
Range	$(-10, 10)$

Intervals, Transformations, and Slope Solution (version 4)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 39$ and $x_2 = 75$. Express your answer as a reduced fraction.

x	$g(x)$
16	75
39	16
58	39
75	58

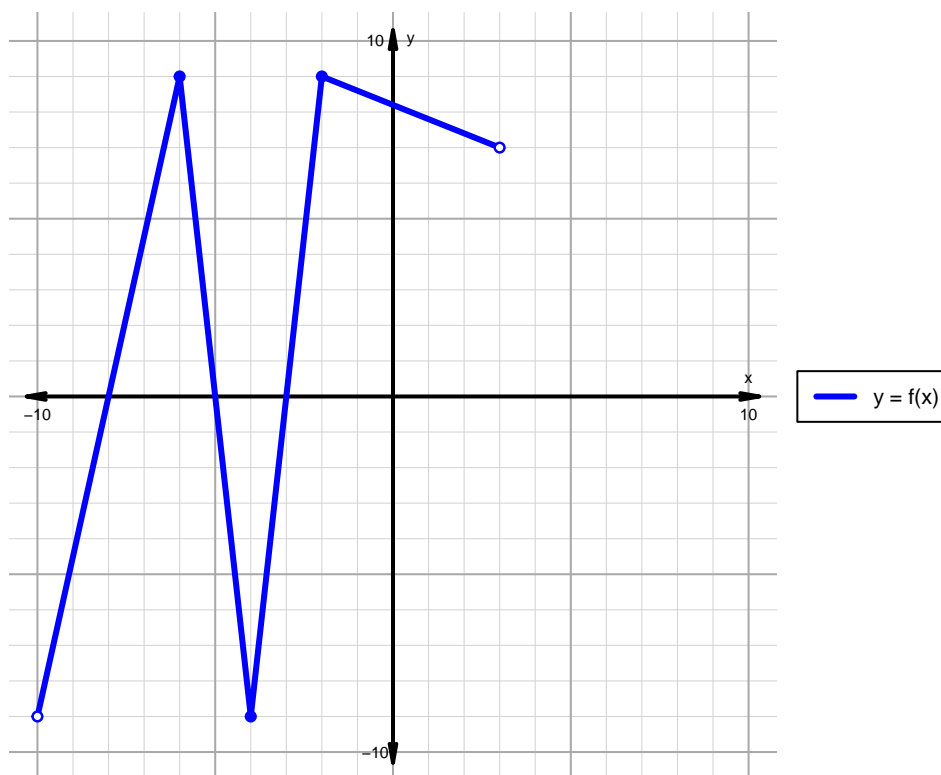
$$\frac{f(75) - f(39)}{75 - 39} = \frac{58 - 16}{75 - 39} = \frac{42}{36}$$

The greatest common factor of 42 and 36 is 6. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{7}{6}$$

Name: _____

Date: _____

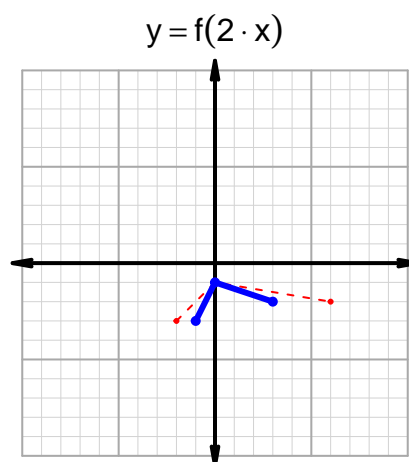
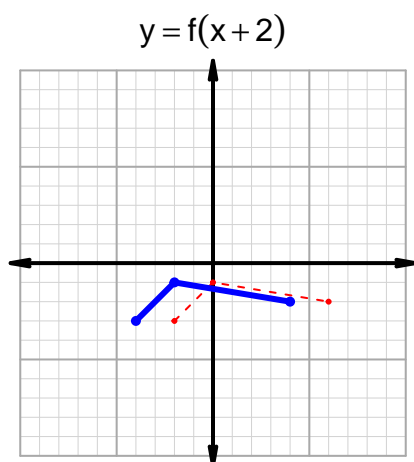
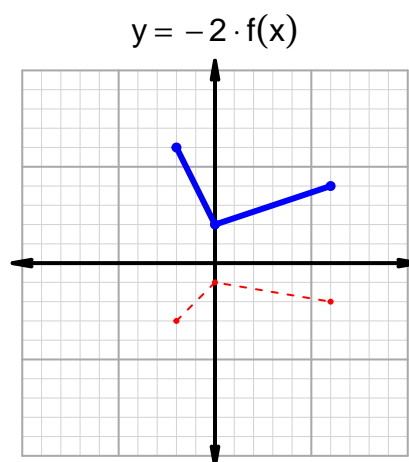
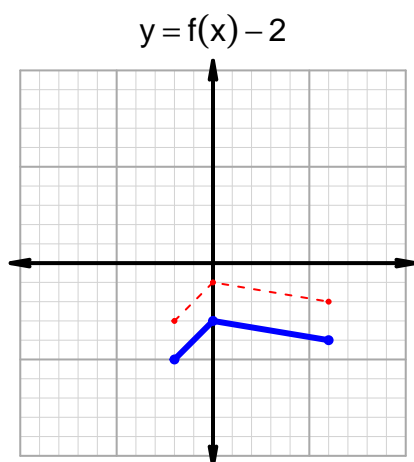
Intervals, Transformations, and Slope Solution (version 5)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-8, -5) \cup (-3, 3)$
Negative	$(-10, -8) \cup (-5, -3)$
Increasing	$(-10, -6) \cup (-4, -2)$
Decreasing	$(-6, -4) \cup (-2, 3)$
Domain	$(-10, 3)$
Range	$(-9, 9)$

Intervals, Transformations, and Slope Solution (version 5)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 34$ and $x_2 = 54$. Express your answer as a reduced fraction.

x	$g(x)$
34	97
54	62
62	34
97	54

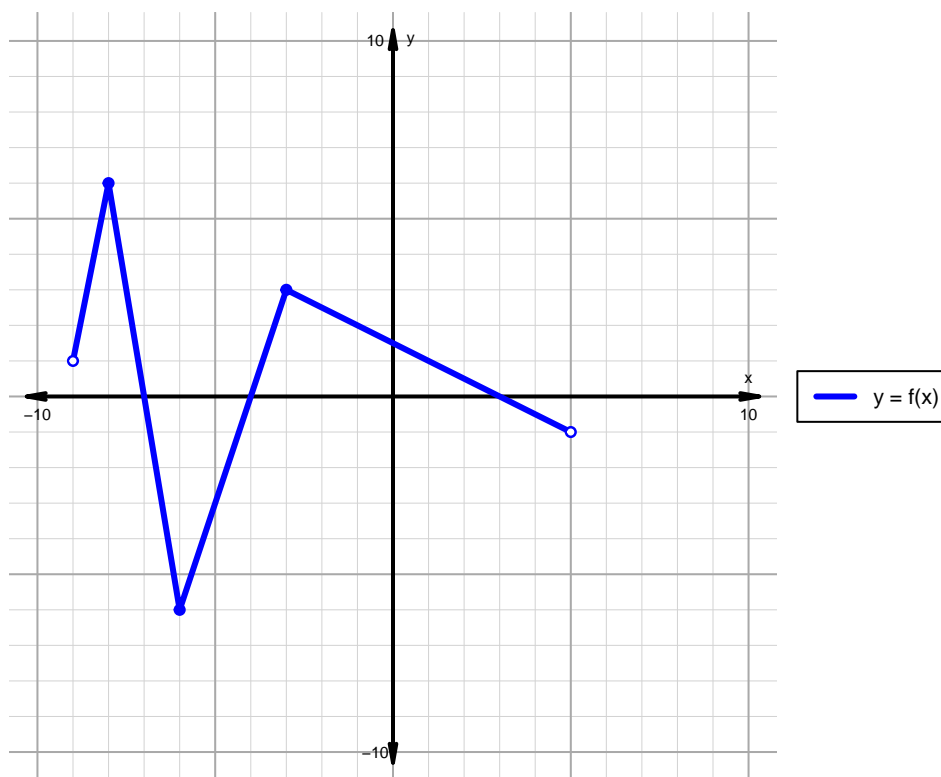
$$\frac{f(54) - f(34)}{54 - 34} = \frac{62 - 97}{54 - 34} = \frac{-35}{20}$$

The greatest common factor of -35 and 20 is 5. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-7}{4}$$

Name: _____

Date: _____

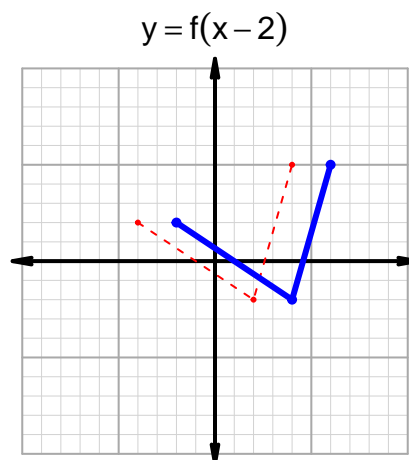
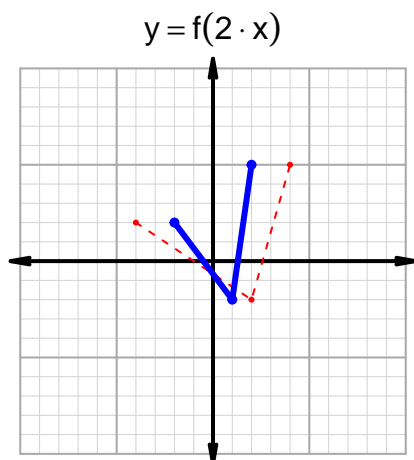
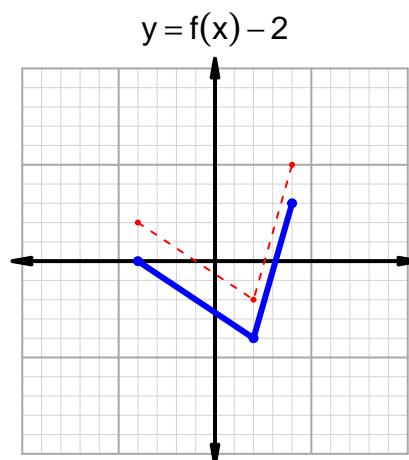
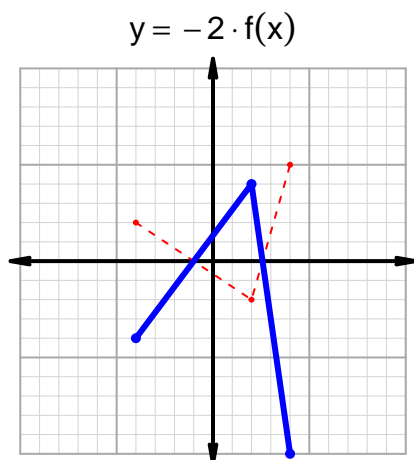
Intervals, Transformations, and Slope Solution (version 6)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-9, -7) \cup (-4, 3)$
Negative	$(-7, -4) \cup (3, 5)$
Increasing	$(-9, -8) \cup (-6, -3)$
Decreasing	$(-8, -6) \cup (-3, 5)$
Domain	$(-9, 5)$
Range	$(-6, 6)$

Intervals, Transformations, and Slope Solution (version 6)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 13$ and $x_2 = 29$. Express your answer as a reduced fraction.

x	$g(x)$
13	44
29	30
30	13
44	29

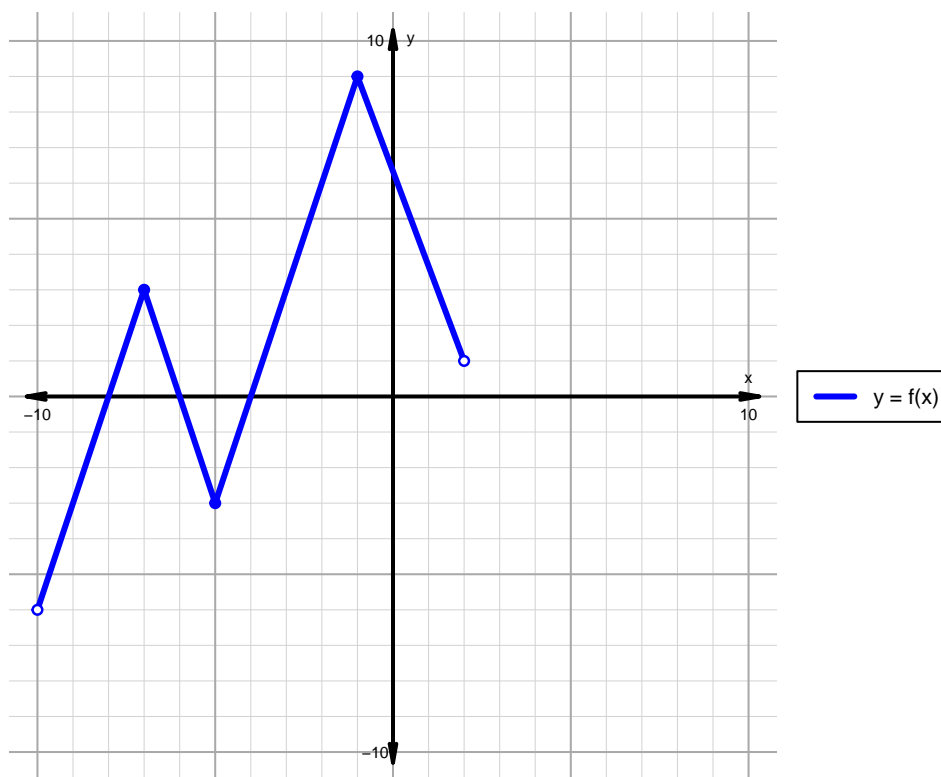
$$\frac{f(29) - f(13)}{29 - 13} = \frac{30 - 44}{29 - 13} = \frac{-14}{16}$$

The greatest common factor of -14 and 16 is 2. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-7}{8}$$

Name: _____

Date: _____

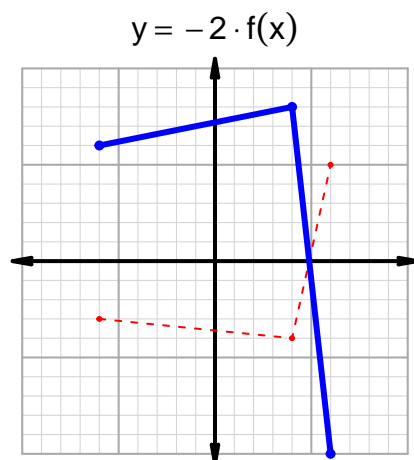
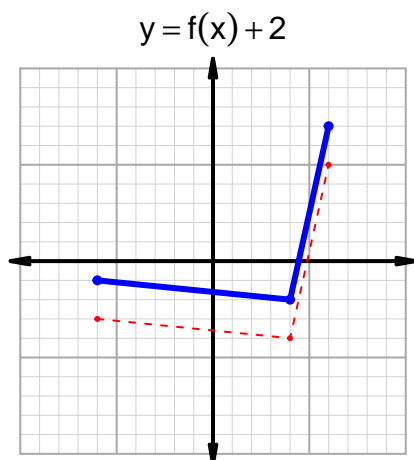
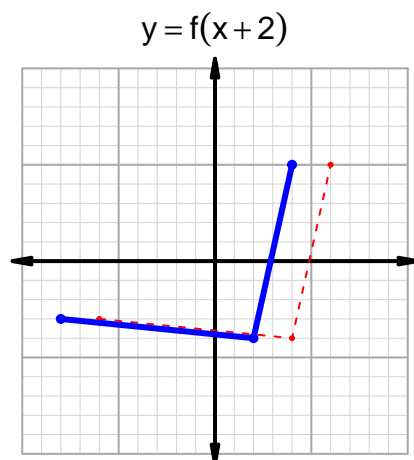
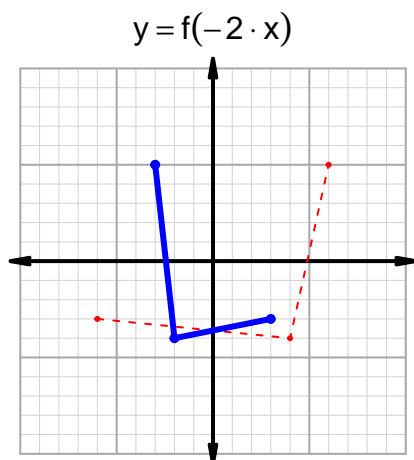
Intervals, Transformations, and Slope Solution (version 7)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-8, -6) \cup (-4, 2)$
Negative	$(-10, -8) \cup (-6, -4)$
Increasing	$(-10, -7) \cup (-5, -1)$
Decreasing	$(-7, -5) \cup (-1, 2)$
Domain	$(-10, 2)$
Range	$(-6, 9)$

Intervals, Transformations, and Slope Solution (version 7)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 66$ and $x_2 = 81$. Express your answer as a reduced fraction.

x	$g(x)$
2	66
23	81
66	23
81	2

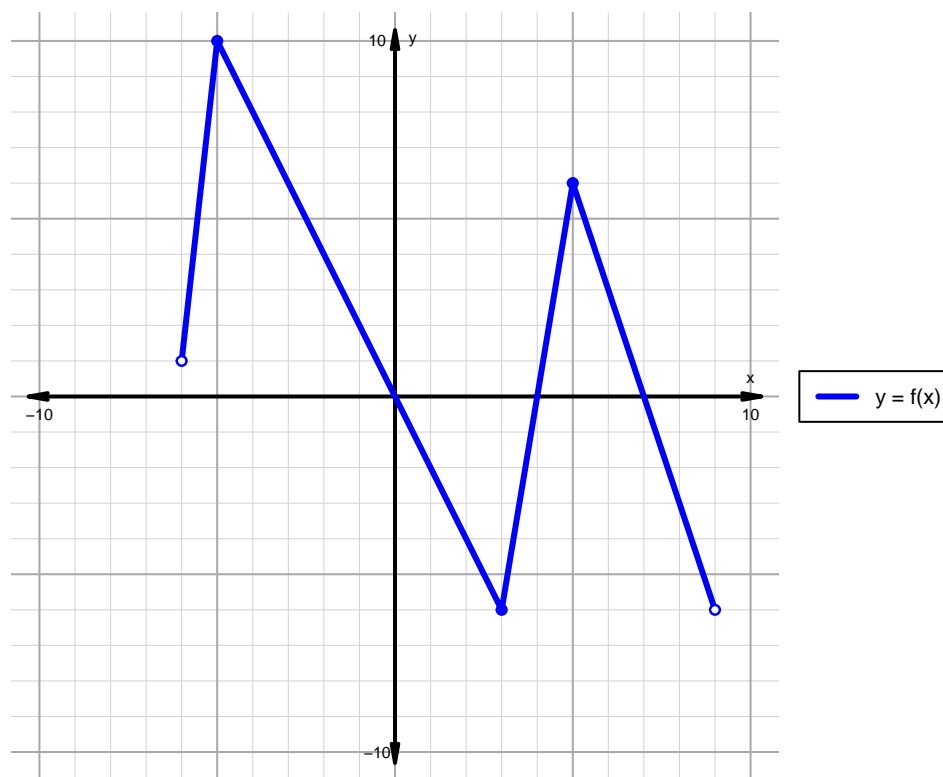
$$\frac{f(81) - f(66)}{81 - 66} = \frac{2 - 23}{81 - 66} = \frac{-21}{15}$$

The greatest common factor of -21 and 15 is 3. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-7}{5}$$

Name: _____

Date: _____

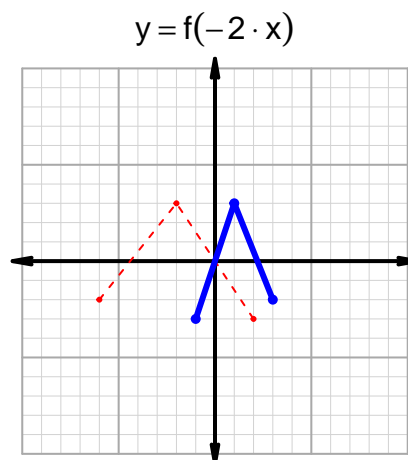
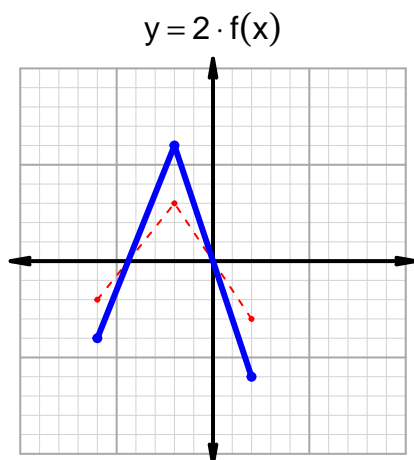
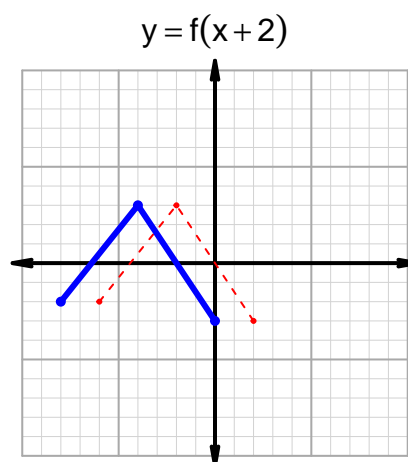
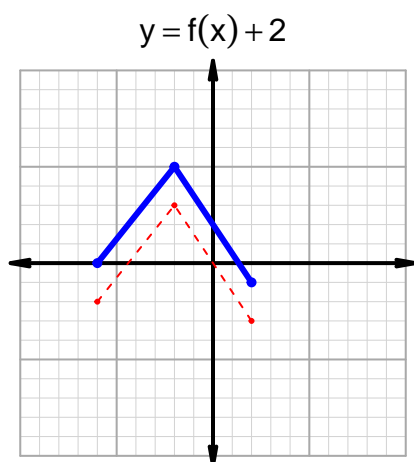
Intervals, Transformations, and Slope Solution (version 8)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-6, 0) \cup (4, 7)$
Negative	$(0, 4) \cup (7, 9)$
Increasing	$(-6, -5) \cup (3, 5)$
Decreasing	$(-5, 3) \cup (5, 9)$
Domain	$(-6, 9)$
Range	$(-6, 10)$

Intervals, Transformations, and Slope Solution (version 8)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 47$ and $x_2 = 87$. Express your answer as a reduced fraction.

x	$g(x)$
47	73
73	87
78	47
87	78

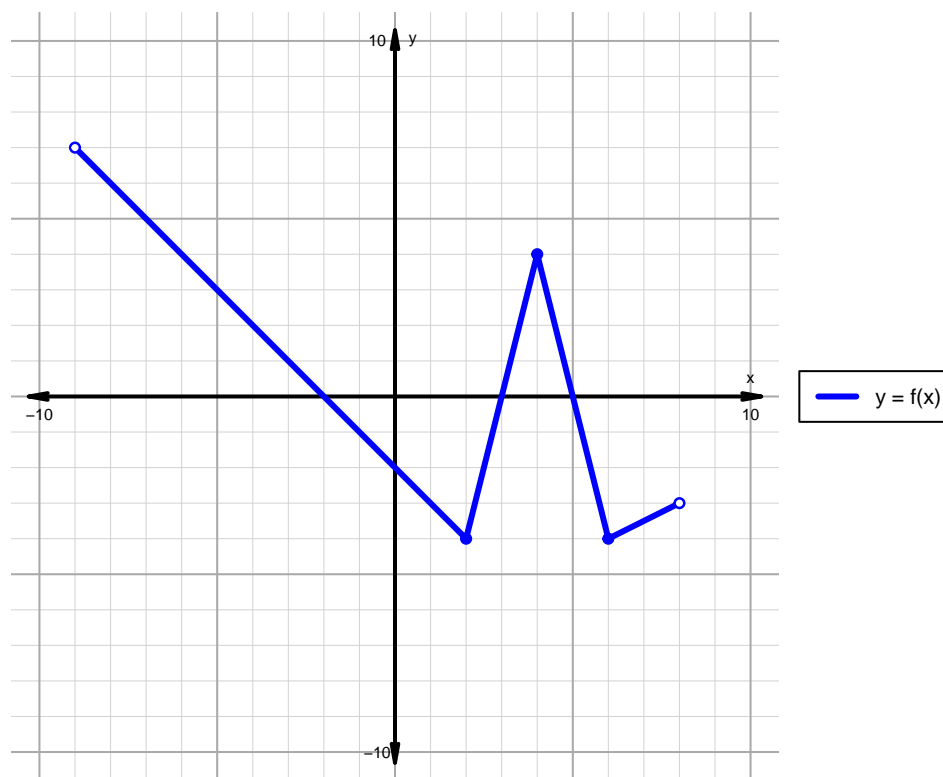
$$\frac{f(87) - f(47)}{87 - 47} = \frac{78 - 73}{87 - 47} = \frac{5}{40}$$

The greatest common factor of 5 and 40 is 5. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{1}{8}$$

Name: _____

Date: _____

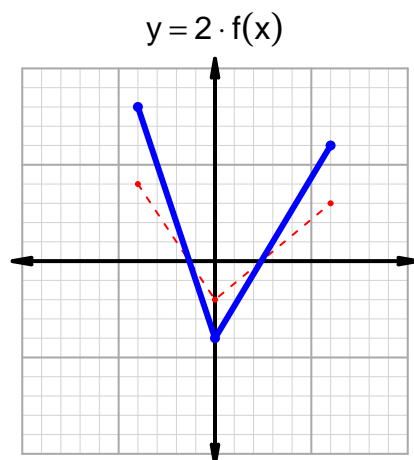
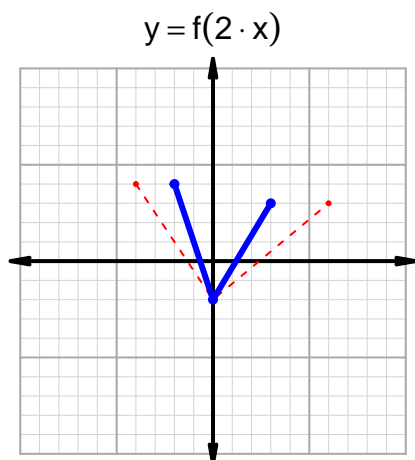
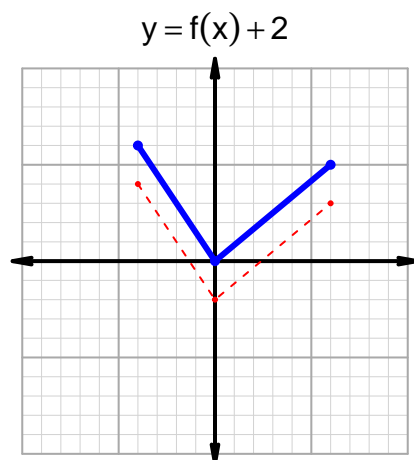
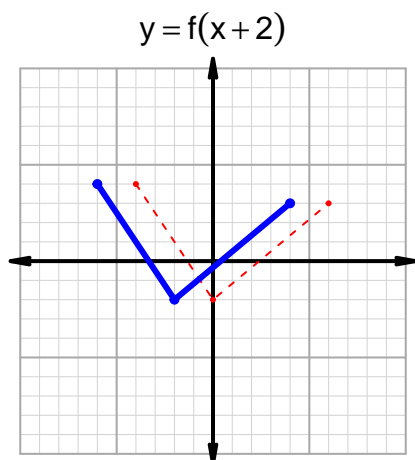
Intervals, Transformations, and Slope Solution (version 9)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-9, -2) \cup (3, 5)$
Negative	$(-2, 3) \cup (5, 8)$
Increasing	$(2, 4) \cup (6, 8)$
Decreasing	$(-9, 2) \cup (4, 6)$
Domain	$(-9, 8)$
Range	$(-4, 7)$

Intervals, Transformations, and Slope Solution (version 9)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 23$ and $x_2 = 65$. Express your answer as a reduced fraction.

x	$g(x)$
23	61
55	23
61	65
65	55

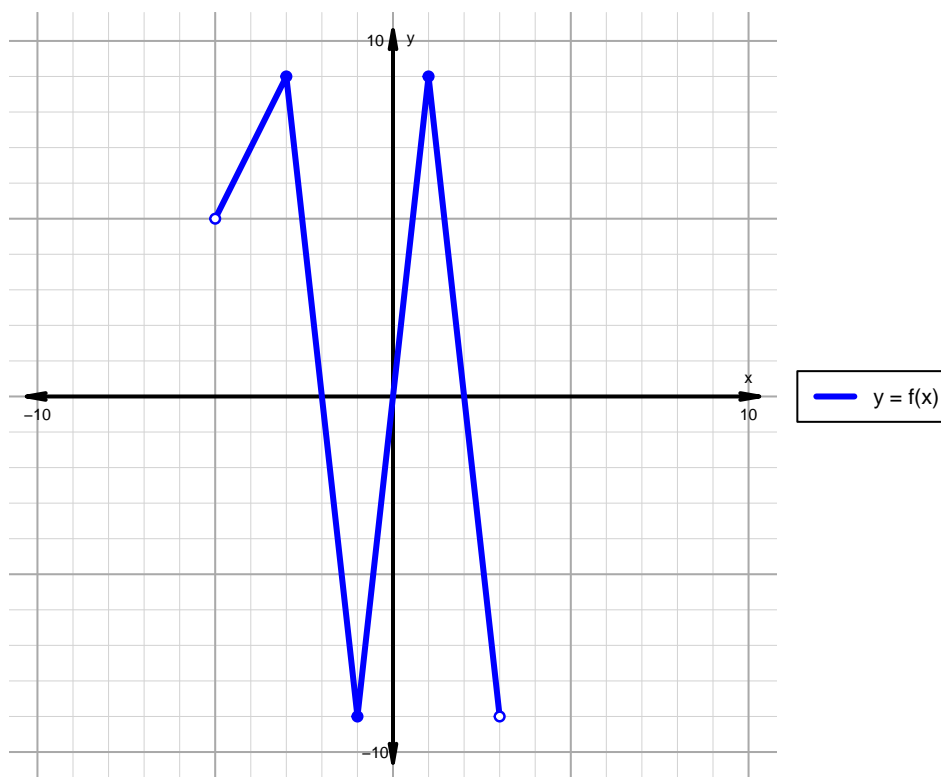
$$\frac{f(65) - f(23)}{65 - 23} = \frac{55 - 61}{65 - 23} = \frac{-6}{42}$$

The greatest common factor of -6 and 42 is 6. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-1}{7}$$

Name: _____

Date: _____

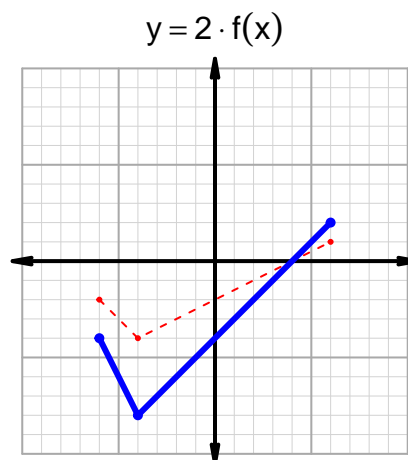
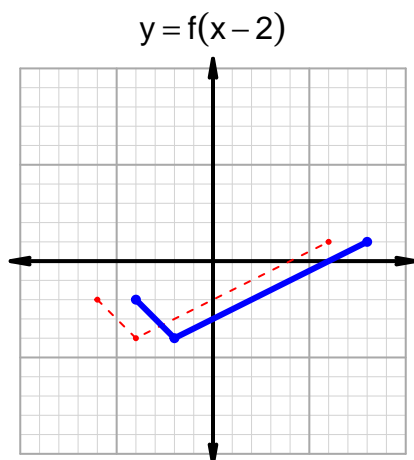
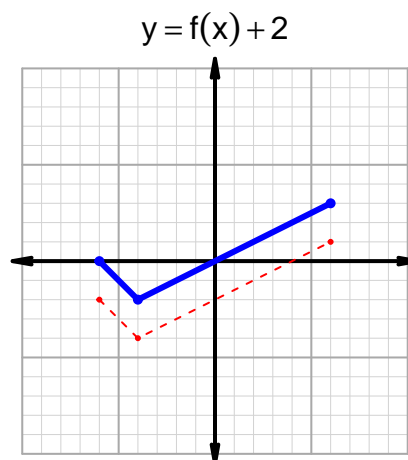
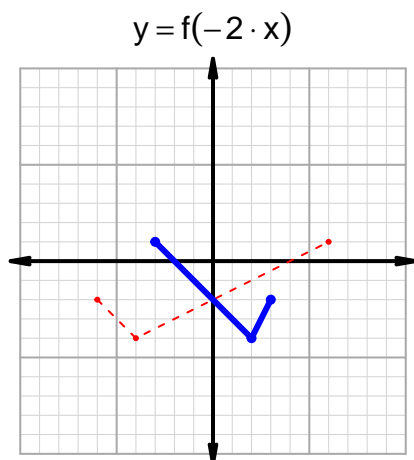
Intervals, Transformations, and Slope Solution (version 10)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-5, -2) \cup (0, 2)$
Negative	$(-2, 0) \cup (2, 3)$
Increasing	$(-5, -3) \cup (-1, 1)$
Decreasing	$(-3, -1) \cup (1, 3)$
Domain	$(-5, 3)$
Range	$(-9, 9)$

Intervals, Transformations, and Slope Solution (version 10)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 27$ and $x_2 = 57$. Express your answer as a reduced fraction.

x	$g(x)$
17	57
27	17
35	27
57	35

$$\frac{f(57) - f(27)}{57 - 27} = \frac{35 - 17}{57 - 27} = \frac{18}{30}$$

The greatest common factor of 18 and 30 is 6. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{3}{5}$$